

AMENDMENTS TO THE CLAIMS:

This listing of the claims will replace all prior versions and listings of claims in the application.

1. Canceled.
2. Canceled.
3. Canceled.
4. Canceled.
5. Canceled.
6. Canceled.
7. Canceled.
8. Canceled.
9. Canceled.
10. Canceled.
11. (Currently amended) A process for the fluid catalytic cracking of hydrocarbonaceous feedstocks comprising:
 - (a) cracking said hydrocarbonaceous feedstock in the presence of a cracking catalyst in a first ~~reaction~~ catalytic cracking zone at a temperature ranging from about 925°F to about 1350°F and a weight hourly space velocity greater than about 50 hr⁻¹ to produce an intermediate cracked product rich in gasoline;
 - (b) cracking said intermediate cracked product rich in gasoline in the presence of said catalyst in a second ~~reaction~~ catalytic cracking zone at a

temperature ranging from about 900°F to about 1250°F and a weight hourly space velocity ~~ranging~~ of less than about 30 hr⁻¹ to produce a cracked product rich in propene and butenes and spent catalyst; and

(c) separating said spent catalyst from said cracked product rich in propene and butenes.

12. (Currently amended)) A process as defined in Claim 11 wherein the temperature in said first catalytic cracking reaction zone ranges from about 1000°F to about 1150°F.
13. (Currently amended) A process as defined in Claim 11 wherein said weight hourly space velocity in said first catalytic cracking reaction zone ranges from about 50 to about 200 hr⁻¹.
14. (Currently amended) A process as defined in Claim 13 wherein said weight hourly space velocity in said first catalytic cracking reaction zone ranges from about 70 to about 80 hr⁻¹.
15. (Currently amended) A process as defined in Claim 11 wherein the conversion in said first catalytic cracking reaction zone ranges from about 35 to about 60 percent.
16. (Currently amended) A process as defined in Claim 11 wherein dilution steam in an amount up to about 20 weight percent based on the weight of said hydrocarbonaceous feedstock is added to said first catalytic cracking zone reaction step.

17. (Currently amended) A process as defined in Claim 11 wherein the temperature in said second catalytic cracking reaction-step zone ranges from about 900 ~~975~~°F to about 1250°F.
18. (Currently amended) A process as defined in Claim 11 wherein the weight hourly space velocity in said second catalytic cracking zone ~~reaction-step~~ ranges from about 5 to about 20 hr⁻¹.
19. (Currently amended) A process as defined in Claim 11 wherein dilution steam in an amount up to about 20 weight percent based on the weight of said hydrocarbonaceous feedstock is added to said second catalytic cracking zone reaction-step.
20. (Original) A process as defined in Claim 11 further comprising quenching the separated cracked product stream.
21. (Currently amended) A process as defined in Claim 11 further comprising stripping the separated spent catalyst to ~~removed~~ remove entrained product vapors, and regenerating said stripped spent catalyst for recycling to said first catalytic cracking zone reaction.
22. (Currently amended) A method for converting a fluid catalytic cracking system to an improved deep catalytic cracking system comprising the steps of:
 - (a) removing a middle section of a riser ~~reaction~~ reactor in the fluid catalytic cracking system to produce a lower first narrower catalytic cracking riser reactor section for catalytically cracking a hydrocarbonaceous feedstock to produce an intermediate cracked product rich in gasoline having a radius x, a

means for feeding a said hydrocarbonaceous feedstock and a means for feeding cracking catalyst located in a lower portion thereof, and an upper riser product conduit having connection to a cracked product/spent catalyst separation means;

- (b) replacing said removed middle riser reactor section with a second wider riser catalytic cracking reactor section for cracking said intermediate cracked product rich in gasoline to produce olefins having a radius y wherein the ratio of y:x ranges from about 1.1:1 to about 5.0:1 and operatively connecting the bottom of said second wider catalytic cracking reactor ~~reaction~~ section to the top of said first narrower catalytic cracking riser reactor section by a transition reactor ~~reaction~~ section and operatively connecting the top of said second wider catalytic cracking reactor ~~riser~~ section to the bottom of said upper riser product conduit.